

SCALE YOUR OTT SERVICE FOR PEAK VIEWING

Deliver low latency, broadcast-quality content, even during high viewing periods.

Ateme's NEA CDN empowers operators to deploy a private, high-performance CDN directly within their existing infrastructure. Purpose-built for video, it acts as a protective shield for origin servers—offloading requests, slashing network load, and streamlining delivery. When paired with Ateme's video origin servers; NEA Live-DVR or NEA Genesis, video delivery is made even more efficient, especially for live and near-live TV.

NEA CDN optimizes network bandwidth requirements by efficiently routing and caching user requests for content thanks to advanced algorithms; for example with content awareness. NEA CDN caches can be distributed geographically to cover multiple territories and positioned close to end users at the edge of the network, in a data center or peering location, improving customer quality of experience.

With chunk-sharing between live and cloud DVR workflows, NEA CDN increases delivery efficiency and optimizes bandwidth by up to 30%, directly cutting costs.

Security is fundamental feature of the solution. NEA CDN supports advanced content protection—from HTTPS tokenization to powerful anti-leeching systems—reinforced through integration with Ateme's Pilot Analytics, enabling rapid detection and mitigation.

Designed as a pure cloud-native application, NEA CDN can be deployed on any infrastructure, whether on-prem, in the cloud or a hybrid mix of both. It leverages container orchestration to offer true scalability. No more expensive overprovisioning: capacity scales precisely to traffic demand allowing you to handle irregular peaks.

NEA CDN is orchestrated with PILOT Manager—Ateme's unified control plane—letting you manage your entire CDN topology from a single, central interface. Define rules, optimize routes, and tailor delivery strategies across your network with full visibility and control.

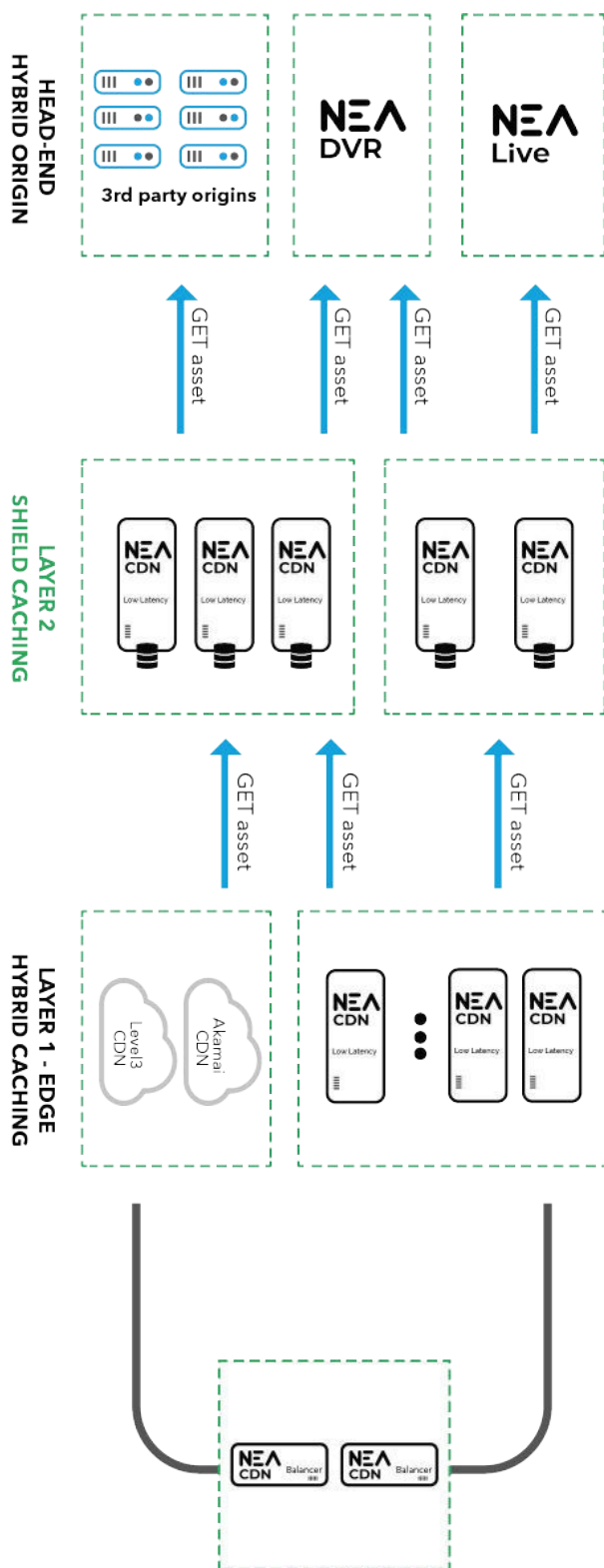
Applications

- Video-focused content delivery
- Real-time intelligent request routing
- Multi-tier content caching

Features and Benefits

- Low-latency live OTT delivery
- Cloud-native, elastic CDN architecture
- Highly scalable, carrier-grade CDN
- Centralized orchestration and management
- Highly customizable business rules directly within the UI
- Flexible offloading to third-party CDN
- Multi CDN selection engine
- HTTP adaptive streaming protocols: MPEG-DASH, HLS, Smooth Streaming
- High-performance content-aware routing and caching
- Device-aware routing and caching
- Granular user geo-location
- Content popularity-based caching

System Architecture



Technical Specifications

Supported Services

Live, Pause TV, Start-over TV, VoD, Catch-up TV, Cloud DVR, Targeted Ads

Content Acquisition

Reverse Proxy pull from origin
Optimized to work with Ateme NEA origin servers
Compatible with third-party HTTP origin servers

Caching Methods

Reverse proxy cache
RAM and/or SSD cache storage
Weighted round-robin capabilities
Cache key manipulation
Intermediate caching layers
Multi-origin source management
Matching conditions engine

Request Routing Algorithms

Requested content & time
Request location
Sources probing
Requesting device
Sources capabilities
Elected source

Request Processing

URL-transformation
QoS tagging
Request filtering
CORS management

Security

TLS
Multi tokens processing
Layer 7 firewall
Sessions limitation per household
Anti-leeching mechanism
AB Watermarking

Management & Orchestration

Web-based GUI
Centralized CDN topology management
Centralized CDN nodes configuration and deployment
REST API
Centralized monitoring, alarming & analytics

Performance

Up to 150,000 req/s and 250 Gbps output on a cache
Recommended hardware for above performances:

- AMD Epyc 9454p CPU
- 768 GB of RAM
- Up to 50TB SSD
- 4 ports x 100Gb NIC

Scalability and Redundancy

Clustering behind virtual IP
Redundant paths through CDN topology
High availability service via Kubernetes